

## Legionellosis (Legionnaires' disease, Pontiac fever)

### Disease Fact Sheet Series

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#### What is legionellosis?

Legionellosis is an infection caused by *Legionella* bacteria. The severity of the illness can be mild or result in pneumonia. Most cases occur as single isolated events, however outbreaks have been noted. There are two distinct forms of the disease: "Legionnaires' disease" and "Pontiac fever".

#### How common is legionellosis?

Approximately 38 cases of legionellosis are reported each year in Wisconsin. It is estimated that 8,000-18,000 persons get Legionnaires' disease in the United States each year.

#### How severe is the illness?

The severity of legionellosis can range from a mild respiratory illness (Pontiac fever) to pneumonia (Legionnaires' disease). Persons with Pontiac fever generally recover in 2-5 days without treatment. Up to 20% of healthy adults have antibodies showing previous exposure to the bacteria, but only a small percentage has a history of previous pneumonia. Fatality rates for persons with Legionnaires' disease can be as high as 30%.

#### Where are *Legionella* bacteria found?

*Legionella* can be found in any type of water system. They have been found in the environment in creeks and ponds and potting soil. The bacteria are prevalent in warm stagnant water such as those found in most plumbing systems, hot water tanks, water in cooling towers, evaporative condensers of large air conditioning systems and hot tubs. Home and automobile air conditioners are NOT a source of *Legionella* bacteria.

#### How is legionellosis spread?

The disease is acquired after inhaling mists from a water source that contains *Legionella* bacteria. The disease can not be spread from person to person.

#### Who gets legionellosis?

The disease occurs most frequently in middle-aged adults. The disease most often affects those who smoke heavily, have chronic lung disease or have underlying medical conditions that lower their immune system resistance to disease such as diabetes, cancer or renal dysfunction.

Persons taking certain drugs that lower their immune system resistance, such as steroids have an increased risk of being affected by legionellosis.

#### What are the usual symptoms of legionellosis?

The early symptoms of legionellosis include muscle aches, headache, tiredness, loss of appetite, and coughing followed by high fever (102-105°), chills and occasionally diarrhea. In Legionnaires' disease chest X-rays often show pneumonia.

#### How soon do symptoms occur?

The period between exposures and onset of illness for Legionnaires' disease is 2-10 days, but most often 5-6 days; for Pontiac fever it is 5-66 hours, but most often 24-48 hours.

#### What is the treatment for legionellosis?

Antibiotics such as erythromycin are effective for treating Legionnaires' disease. Pontiac fever requires no specific treatment.